

Dr. Ayaz Ahmad

Associate Professor



Personal Data:

Nationality | Pakistani
Date of Hire | 18 March 2024
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Education:

Academic Degree	Major	specialty	Place of Issue	Address	Date
Doctorate (PhD)	Telecommunications	Wireless Communication	CentraleSupélec	Gif-sur-Yvette, France	09/12/2011
Masters (M.Sc.)	Telecommunications	Wireless Communication	CentraleSupélec	Gif-sur-Yvette, France	12/09/2008
Bachelor (B.Sc.)	Electrical Engineering	Communications	University of Engineering & Technology	Peshawar, Pakistan	17/06/2006

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions):

PhD	Resource optimization and robust CQI reporting in wireless communication systems
Master	Resource optimization in OFDMA systems with imperfect channel state information

Experiences:

Title of Job	Address of Work	Country	Date	
Associate Professor	King Faisal University - College of Engineering	KSA	From	March 2024
			To	Present
Associate Professor	Electrical & Computer Engineering Department, COMSATS University Islamabad – Wah Campus	Pakistan	From	March 2020
			To	March 2024
Associate Professor	Electrical & Computer Engineering Department, COMSATS University Islamabad – Wah Campus	Pakistan	From	June 2012
			To	March 2020
Instructor	FAST-NUCES, Peshawar	Pakistan	From	July 2006
			To	January 2007

Research Interests:

1. 5G/6G Networks and Beyond
2. Resource allocation in wireless networks
3. Optimization methods and ML/computational intelligence algorithms
4. Energy management in smart grid

Publications:

#	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1.	Ayaz Ahmad , and N. U. Hassan	Smart Grid as a Solution for Renewable and Efficient Energy (Edited Book)	IGI Global, April 2016	https://www.igi-global.com/book/smart-grid-solution-renewable-efficient/142123
2.	Zeeshan Kaleem, Waqas Khalid, Ayaz Ahmad , Heejung Yu, Abdullah M Almasoud, and Chau Yuen	Reinforcement Learning for Energy-Efficient User Association in UAV-Assisted Cellular Networks	IEEE Transactions on Aerospace and Electronic Systems, April 2024.	https://ieeexplore.ieee.org/document/10409538
3.	Aamir Rashid, Latif U Khan, Naeem Khan, Hong Min, Ayaz Ahmad , Shabir Ahmad	Resource Optimized Vehicular Edge Networks with Fairness Constraints	IEEE Access, April 2024.	https://ieeexplore.ieee.org/document/10499440
4.	Naveed Khan, Ayaz Ahmad , AbdulWakeel, Zeeshan Kaleem, Bushra Rashid, Waqas Khalid	Efficient UAVs Deployment and Resource Allocation in UAV-Relay Assisted Public Safety Networks for Video Transmission	IEEE Access, January 2024.	https://ieeexplore.ieee.org/document/10381707
5.	Muhammad Ilyas Khattak, Yuan Hui, Ayaz Ahmad , Manzoor Ahmed, Ajmal Khan, Inamullah	PAM: Predictive analytics and modules-based computation offloading framework using greedy heuristics and 5G NR-V2X	Transactions on Emerging Telecommunications Technologies, July 2024	https://onlinelibrary.wiley.com/doi/10.1002/ett.5003
6.	Naveed Khan, Ayaz Ahmad , Sher Ali, Tariqullah Jan, Ihsan Ullah	IRS and UAV-relay assisted public safety networks for video transmission: optimizing UAVs deployment and resource allocation	Telecommunications Systems, July 2024.	https://link.springer.com/article/10.1007/s11235-024-01128-3
7.	Muhammad Ilyas Khattak, Yuan Hui, Ayaz Ahmad , and Ajmal Khan	RPR: Reputation-based prioritization and resource allocation leveraging predictive analytics and vehicular fog computing	Ad Hoc Networks, March 2024.	https://www.sciencedirect.com/science/article/abs/pii/S157087052400012X

8.	Bushra Rashid, Ayaz Ahmad , Sher Ali, Zeeshan Kaleem, Ahmed Alkhayyat, and Chau Yuen	Energy Efficient Resource Allocation for Uplink MC-NOMA based Heterogeneous Small Cell Networks with Wireless Backhaul	IEEE Transactions on Vehicular Technology, March 2023	https://ieeexplore.ieee.org/abstract/document/9932016
9.	Muhammad Ilyas Khattak, Yuan Hui, Ayaz Ahmad, Ammar Hawbani, Ajmal Khan, and Inamullah	TSM: Temporal segmentation and modules-based computation offloading using predictive analytics and NR-V2X	Internet of Things, December 2023.	https://www.sciencedirect.com/science/article/abs/pii/S2542660523002354
10.	Zaheer Ahmed, Ayaz Ahmad , Muhammad Altaf, and Farman Ali Khan.	Power efficient UAV placement and resource allocation for adaptive video streaming in wireless networks	Ad Hoc Networks, November 2023	https://www.sciencedirect.com/science/article/abs/pii/S1570870523001804
11.	Abdul Basit, Abdul Wakeel, Ayaz Ahmad , Mir Y. Umair, Alina Mirza, Muhammad Imran, and Humayun Z. Khan	Optimum power allocation for an energy harvesting wireless communication system considering energy storage losses	Ad Hoc Networks, May 2023.	https://www.sciencedirect.com/science/article/abs/pii/S1570870523000586
12.	Zahoor Uddin, Muhammad Altaf, Ayaz Ahmad , Aamir Qamar, and Farooq Alam Orakzai	Isolation of multiple electrocardiogram artifacts using independent vector analysis	PeerJ Computer, February 2023	https://peerj.com/articles/cs-1189/
13.	Zeeshan Kaleem, Ayaz Ahmad , Omer Chughtai and J. J. P. C. Rodrigues	Enhanced Max-min Rate of Users in UAV-assisted Emergency Networks using Reinforcement Learning	IEEE Networking Letters, September 2022	https://ieeexplore.ieee.org/abstract/document/9840755
14.	Fawad Ahmad, Ayaz Ahmad , Irshad Hussain, Ghulam Muhammad, Zahoor Uddin, and Salman AlQahtani,	Proactive Caching in D2D Assisted Multitier Cellular Network	Sensors, July 2022	https://www.mdpi.com/1424-8220/22/14/5078
15.	Zahoor Uddin, Aamir Qamar, Abdullah G Alharbi, Farooq Alam Orakzai, Ayaz Ahmad	Detection of Multiple Drones in a Time-Varying Scenario Using Acoustic Signals	Sustainability, March 2022	https://www.mdpi.com/2071-1050/14/7/4041
16.	Hira Waris, Ayaz Ahmad , Muhammad Y. Qadri, Gulistan Raja, and Tahir Nadeem Malik	GA-EDA: Hybrid Design Space Exploration Engine for Multicore Architecture	Journal of Circuits Systems and Computers, August 2021	https://www.worldscientific.com/doi/10.1142/S0218126621501814

17.	Muhammad Nadeem, Muhammad Altaf, and Ayaz Ahmad	Short Term Load Forecasting using Hybrid Neural Network	International Journal of Applied Metaheuristic Computing, January 2021.	https://www.igi-global.com/gateway/article/268395#pnlRecommendationForm
18.	Bushra Rasheed, Ayaz Ahmad , Sajid Saleem, and Aimal Khan	Joint Energy Efficient Power and Subchannel Allocation for Uplink MC-NOMA Networks	International Journal of Communication Systems, November 2020.	https://onlinelibrary.wiley.com/doi/full/10.1002/dac.4606
19.	Fawad Ahmad, Ayaz Ahmad , Irshad Hussain, I., Peerapong Uthansakul, and Suleman Khan	Cooperation Based Proactive Caching in Multi-Tier Cellular Networks	Applied Sciences, September 2020	https://www.mdpi.com/2076-3417/10/18/6145
20.	Naveed Ul Hassan, Chongwen Huang, Chau Yuen, Ayaz Ahmad , Yan Zhang	Dense Small Satellite Networks for Modern Terrestrial Communication Systems: Benefits, Infrastructure, and Technologies	IEEE Wireless Communications, September 2020	https://ieeexplore.ieee.org/document/9210133
21.	Shahid Ali Murtaza, Ayaz Ahmad , Muhammad Yasir., Nadia N. Qadri, Majed Al Haison, and Sajid Baloch	An Integer Cat Swarm Optimization approach for Energy and Throughput efficient MPSoC Design	International Journal of Computational Intelligence Systems, July 2020	https://www.atlantispress.com/journals/ijcis/125941609
22.	Sadiq Ahmad, Majed M. Alhaisoni, Muhammad Naeem, Ayaz Ahmad, and Muhammad Altaf	Joint Energy Management and Energy Trading in Residential Microgrid System	IEEE Access, July 2020	https://ieeexplore.ieee.org/abstract/document/9133420
23.	Shahid Ali Murtaza, Ayaz Ahmad , and Jawad Shafique	Integer Cat Swarm Optimization Algorithm for Multiobjective Integer Problems	Soft Computing, February 2020	https://link.springer.com/article/10.1007/s00500-019-04023-1
24.	Maryam Murad, Ishfaq Hussain, Ayaz Ahmad , Muhammad Yasir., Nadia N. Qadri	Estimation of Distribution based Multi-objective Design Space Exploration for Energy and Throughput Optimized MPSoCs	Turkish Journal Of Electrical Engineering And Computer Sciences, January 2020	http://journals.tubitak.gov.tr/elektrik/issues/elk-20-28-1/elk-28-1-40-1812-59.pdf
25.	Sher Ali, Ayaz Ahmad , Yasir Faheem, Muhammad Altaf, and Habib Ullah	Energy-Efficient RRH-Association and Resource Allocation in D2D Enabled Multi-tier 5G C-RAN	Telecommunication Systems, June 2020	https://link.springer.com/article/10.1007/s11235-019-00643-y

26.	Sadiq Ahmad, Muhammad Naeem, Ayaz Ahmad	Unified Optimization Model for Energy Management in Sustainable Smart Power Systems	International Transactions on Electrical Energy Systems, April 2020.	https://onlinelibrary.wiley.com/doi/full/10.1002/2050-7038.12144
27.	Zeeshan Kaleem, Muhammad Yousaf, Aamir Qamar, Ayaz Ahmad , Trung Q. Duong, W. Choi, Abbas Jamalipour	UAV-Empowered Disaster- Resilient Edge Architecture for Delay-Sensitive Communication	IEEE Network, Nov.-Dec. 2019	https://ieeexplore.ieee.org/abstract/document/8715333/
28.	Falak Tahir, Sajid Saleem, and Ayaz Ahmad	Extracting accent information from Urdu speech for forensic speaker recognition	Turkish Journal Of Electrical Engineering And Computer Sciences, Sept 2019.	http://journals.tubitak.gov.tr/elektrik/issues/elk-19-27-5/elk-27-5-35-1812-152.pdf
29.	Faheem Uddin, Ayaz Ahmad , Hameed Ullah, Aimal Khan, Tariq Umer, and Shaohua Wan	Efficient Sizing and Placement of Distributed Generators in Cyber-Physical Power Systems	Journal of Systems Architecture, Augu st 2019.	https://www.sciencedirect.com/science/article/pii/S1383762118303278
30.	Farman Ali Khan, Awais Akbari, Muhammad Altaf, Shujat Ali Khan, Tanoli and Ayaz Ahmad	Automatic student modeling for the detection of learning styles and affective states in web based learning management system	IEEE Access, August 2019.	https://ieeexplore.ieee.org/abstract/document/8812729
31.	Muhammad Altaf, Muhammad Uzair, Muhammad Naeem, Ayaz Ahmad , Saeed Badshah, Jawad Ali Shah, Almas Anjum	Automatic and Efficient Fault Detection in Rotating Machinery using Sound Signals	Acoustics Australia, August 2019	https://www.infona.pl/resource/bwmeta1.element.springer-doi-10_1007-S40857-019-00153-6
32.	Jawad Shafique, Ayaz Ahmad , and Shahid Ali Murtaza	A Multi-Objective Integer Melody Search Algorithm	Applied Artificial Intelligence, March 2019	https://www.tandfonline.com/doi/full/10.1080/08839514.2018.1556419
33.	Sher Ali, Ayaz Ahmad , Aimal Khan	Energy-Efficient Resource allocation and RRH-Association in Multi-Tier 5G H-CRANs	Transactions on Emerging Telecommunicatio ns Technologies, January 2019.	https://onlinelibrary.wiley.com/doi/full/10.1002/ett.3521
34.	Sadiq Ahmad, Muhammad Naeem, and Ayaz Ahmad	Low Complexity Approach for Energy Management in Residential Buildings	International Transactions on Electrical Energy Systems, January 2019.	https://onlinelibrary.wiley.com/doi/10.1002/etep.2680

35.	Farooq Alam Orakzai, Muhammad Iqbal, Ayaz Ahmad , and Muhammad Naeem	Energy Efficient Joint Radio Resource Management in D2D Assisted Cellular Communication	Telecommunication Systems, December 2018	https://link.springer.com/article/10.1007/s11235-018-0451-3
36.	Sadiq Ahmed, Ayaz Ahmad , Muhammad Naeem, Waleed Ejaz, Hyung Seok	A Compendium of Performance Metrics, Pricing Schemes, Optimization Objectives and Solution Methodologies of Demand Side Management for Smart Grid	Energies, October 2018.	https://www.mdpi.com/1996-1073/11/10/2801
37.	Aimal Khan, Saad Rehman, and Muhammad Abbas, and Ayaz Ahmad	On the Mutual Information of Relaying Protocols	Physical Communication, October 2018.	https://www.sciencedirect.com/science/article/pii/S1874490718301149
38.	Muhammad Altaf, Ayaz Ahmad , Farman Ali, Zahoor Uddin and Xiaodong Yang	Computationally Efficient Selective Video Encryption with Chaos Based Block Cipher	Multimedia Tools and Applications, November 2018	https://dl.acm.org/citation.cfm?id=3287904 https://link.springer.com/article/10.1007/s11042-018-6022-5
39.	Hidayatullah khan, Muhammad Amin, and Ayaz Ahmad	Performance evaluation of alumina trihydrate and silica filled silicone rubber composites for outdoor High Voltage insulations	Turkish Journal Of Electrical Engineering And Computer Sciences, March 2018	http://journals.tubitak.gov.tr/elektrik/issues/elk-18-26-5/elk-26-5-42-1609-284.pdf
40.	Hidayatullah khan, Muhammad Amin, Muhammad Yasin, and Ayaz Ahmad	Investigation of Electrical, Tracking/Erosion, and Water Absorption Resistance Properties of ATH-SiO ₂ Reinforced RTV-SiR Composites for High Voltage Insulations	Journal of Elastomers and Plastics, October 2018.	https://journals.sagepub.com/doi/abs/10.1177/0095244317733769
41.	Hidayatullah khan, Muhammad Amin, and Ayaz Ahmad	Characteristics of Silicone Composites for High Voltage Insulation	Reviews on Advanced materials Science, May 2018.	http://www.ipme.ru/e-journals/RAMS/no_15618/05_15618_khan.pdf
42.	Arsalan Shahid, Muhammad Yasir Qadri, Martin Fleury, Hira Waris, Ayaz Ahmad and Nadia N. Qadri	AC-DSE: Approximate Computing for the Design Space Exploration of Reconfigurable MPSoCs	Journal of Circuits Systems and Computers, August 2018	https://www.worldscientific.com/doi/abs/10.1142/S0218126618501451
43.	Zahoor Uddin, Ayaz Ahmad , Amir Qamar, and Muhammad Altaf	Recent Advances of the Signal Processing Techniques in Future Smart Grids	Human-centric Computing and Information Sciences, December 2018	https://link.springer.com/article/10.1186/s13673-018-0126-9

44.	Muhammad Amjad, Ayaz Ahmad , Mubashir Husain Rehmani, and Tariq Umer	A review of EVs charging: From the perspective of energy optimization, optimization approaches, and charging techniques	Transportation Research Part D: Transport and Environment, July 2018	https://www.sciencedirect.com/science/article/pii/S1361920917306120
45.	Sher Ali, Ayaz Ahmad , Razi Iqbal, Sajid Saleem, and Tariq Umer	Joint RRH-Association, Subchannel Assignment and Power Allocation in Multi-Tier 5G C-RANs	IEEE Access, June 2018	https://ieeexplore.ieee.org/document/8387765
46.	Mubashir Husain Rehmani, Ayaz Ahmad , Abderrezak Rachedi, Soumaya Cherkaoui, and Kok-Lin Alin Yau	Editorial: Energy Harvesting and Scavenging: Technologies, Algorithms, and Communication Protocols	IEEE Access, March 2018	https://ieeexplore.ieee.org/document/8326690
47.	Zahoor Uddin, Ayaz Ahmad , Muhammad Iqbal and Zeeshan Kaleem	Adaptive Step Size Gradient Ascent ICA Algorithm for Wireless MIMO Systems	Mobile Information Systems, May 2018	https://www.hindawi.com/journals/misy/2018/7038531/
48.	Shahid Ali Murtaza, Ayaz Ahmad , Muhammad Yasir Qadri, Nadia N. Qadri and Jameel Ahmed	Optimizing Energy and Throughput for MPSoCs: An Integer Particle Swarm Optimization Approach	Computing, March 2018.	https://link.springer.com/article/10.1007/s00607-017-0574-5
49.	Zeeshan Kaleem, Ayaz Ahmad , and Mubashir Husain Rehmani	Neighbors' interference situation-aware power control scheme for dense 5G mobile communication system	Telecommunication Systems, March 2018	https://link.springer.com/article/10.1007/s11235-017-0350-z
50.	Muhammad Iqbal, Muhammad Naeem. Ashfaq Ahmed, Muhammad Awais, Alagan Anpalagan, Ayaz Ahmad	Swarm Intelligence Based Resource Management for Cooperative Cognitive Radio Network in Smart Hospitals	Wireless Personal Communications, January 2018	https://link.springer.com/article/10.1007/s11277-017-4884-x
51.	Zahooruddin, Muhammad Altaf, Ayaz Ahmad , Farooq Alam	Gradient Ascent Independent Component Analysis Algorithm for Telecommunication Signals	Journal of Engineering and Applied Sciences, June 2017	https://researcherslinks.com/current-issues/GRADIENT-ASCENT-INDEPENDENT/31/5/3097
52.	Ishfaq Hussain, Abida Parveen, Ayaz Ahmad , Muhammad Yasir Qadri, Nadia N. Qadri and Jameel Ahmed	NSGA-II based Design Space Exploration for Energy and Throughput aware Multicore Architectures	Cybernetics and Systems, December 2017	https://www.tandfonline.com/doi/full/10.1080/01969722.2017.1402433
53.	Hidayatullah khan, Muhammad Amin, and Ayaz Ahmad	Multistress-accelerated aging and Tracking/Erosion-Resistance Investigation of High Voltage Polymeric Insulators	Arabian Journal for Science and Engineering, December 2017.	https://link.springer.com/article/10.1007/s13369-017-2595-y

54.	Farooq Alam Orakzai, Muhammad Iqbal, Ayaz Ahmad , and Muhammad Naeem	A Compendium of Optimization Techniques for Green Radio Resource Management	Telecommunication Systems, November 2017.	http://link.springer.com/article/10.1007/s11235-017-0298-z
55.	Hidayatullah khan, Muhammad Amin, Muhammad Yasin, Muhammad Ali, and Ayaz Ahmad	Effect of hybrid-SiO ₂ particles on characterization of EPDM and Silicone rubber composites for outdoor high-voltage insulations.	Journal of Polymer Engineering, August 2017	https://www.degruyter.com/view/j/polyeng.ahead-of-print/polyeng-2016-0102/polyeng-2016-0102.xml
56.	Sajid Saleem, Abdul Bais, Robert Sablatnig, Ayaz Ahmad , and Noman Naseer	Feature points for multisensor images	Computers & Electrical Engineering, August 2017.	http://www.sciencedirect.com/science/article/pii/S045790616304797
57.	Farooq Alam Orakzai, Ayaz Ahmad , Muhammad Toaha Raza Khan, and Muhammad Iqbal	Optimal Energy-Efficient Resource Allocation in Uplink SC-FDMA Networks	Transactions on Emerging Telecommunications Technologies, August 2017	http://onlinelibrary.wiley.com/doi/10.1002/ett.3153/full
58.	Sher Ali, and Ayaz Ahmad	Resource Allocation, Interference Management and Mode Selection in Device-to-Device Communication: A Survey	Transactions on Emerging Telecommunications Technologies, July 2017.	http://onlinelibrary.wiley.com/doi/10.1002/ett.3148/abstract
59.	Habib Ullah, Muhammad Uzair, Mohib Ullah, Asif Khan, Ayaz Ahmad , and Wilayat Khan	Density independent hydrodynamics model for crowd coherency detection	Neurocomputing, June 2017	http://www.sciencedirect.com/science/article/pii/S092523121730293X
60.	Zahoor Uddin, Ayaz Ahmad, and Muhammad Iqbal	ICA based MIMO transceiver for time varying wireless channels utilizing smaller data block lengths	Wireless Personal Communications, June 2017	https://link.springer.com/article/10.1007/s11277-016-3769-8
61.	Ayaz Ahmad , Mubashir Husain Rehmani, Hamidou Tembine, Osama Mohammed, and Abbas Jamalipour	Editorial: Optimization for Emerging Wireless Networks: IoT, 5G and Smart Grid Communication Networks	IEEE Access, March 2017.	http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7875185
62.	Ayaz Ahmad , and Muhammad Toaha Raza Khan	Resource allocation for SC-FDMA based cognitive radio systems	International Journal of Communication Systems, March 2017	http://onlinelibrary.wiley.com/doi/10.1002/dac.3046/abstract

63.	Ayaz Ahmad, Muhammad T. R. Khan, and Zeeshan Kaleem	Uplink optimal power allocation for heterogeneous multiuser SIMO SC-FDMA networks	Electronics Letters, November 2016	http://ieeexplore.ieee.org/document/7756002/ http://digital-library.theiet.org/content/journals/10.1049/el.2016.2872
64.	Ishfaq Hussain, Ayaz Ahmad, Muhammad Yasir Qadri, Nadia N. Qadri and Jameel Ahmed	Ant colony optimization for multicore re-configurable architecture	AI Communications, November 2016	http://content.iospress.com/articles/ai-communications/aic708
65.	Ayaz Ahmad, Naveed Ul Hassan, Mohamad Assaad, and Hamidou Tembine	Joint power control and rate adaptation for video streaming in wireless networks with time varying interference	IEEE Transactions on Vehicular Technology, Aug. 2016.	http://ieeexplore.ieee.org/document/7273961/
66.	Raziq Yaqub, Sadiq Ahmad, Ayaz Ahmad, and Muhammad Amin	Smart energy-consumption management system considering consumers' spending goals (SEMS-CCSG)	International Transactions on Electrical Energy Systems, July 2016.	http://onlinelibrary.wiley.com/doi/10.1002/etep.2167/abstract
67.	Ayaz Ahmad, and Mohsin Anwar	Resource allocation for OFDMA based cognitive radio networks with arbitrarily distributed finite power inputs	Wireless Personal Communications, June 2016.	https://link.springer.com/article/10.1007/s11277-016-3208-x
68.	Bushra Rashid, Mubashir Husain Rehmani, and Ayaz Ahmad	Broadcasting strategies for cognitive radio networks: Taxonomy, issues, and open challenges	Computers & Electrical Engineering, May 2016.	http://www.sciencedirect.com/science/article/pii/S045790615002839
69.	Zahoor Uddin, Ayaz Ahmad, Muhammad Iqbal, and Muhammad Naeem	Modified infomax algorithm for smaller data block lengths	Wireless Personal Communications, March 2016	https://www.springerprofessional.de/en/modified-infomax-algorithm-for-smaller-data-block-lengths/10768316#paywall
70.	Nadir Shah, Ayaz Ahmad, Babar Nazir, & Depei Qian	A cross-layer approach for partition detection at overlay layer for structured P2P in MANETs	Peer-to-Peer Networking and Applications, March 2016.	https://link.springer.com/article/10.1007/s12083-015-0341-3
71.	Ayaz Ahmad	Power allocation for uplink SC-FDMA systems with arbitrary input distribution	Electronics Letters, Jan. 2016	http://ieeexplore.ieee.org/document/7384911/
72.	Aqsa Ali, Ali Shabbir, Naveed Ul Hassan, Chau Yuen, Ayaz Ahmad, and Wayes Tushar	Understanding customer behavior in multi-tier demand response management program	IEEE Access, Dec 2015	http://ieeexplore.ieee.org/document/7350111/
73.	Zahoor Uddin, Ayaz Ahmad, Muhammad Iqbal, and Muhammad Naeem	Applications of independent component analysis in wireless communication systems	Wireless Personal Communications, August 2015.	https://link.springer.com/article/10.1007/s11277-015-2565-1

74.	Zahoor Uddin, Ayaz Ahmad , Muhammad Iqbal, and Nadir Shah	Independent component analysis based MIMO transceiver with improved performance in time varying wireless channels	KSII Transactions on Internet and Information Systems, Jul. 2015.	http://www.itiis.org/digital-library/manuscript/1056
75.	Ayaz Ahmad , Sadiq Ahmad, Mubashir Husain Rehmani, Naveed Ul Hassan	A survey on radio resource allocation in cognitive radio sensor networks,"	IEEE Communications Surveys and Tutorials, Feb 2015	http://ieeexplore.ieee.org/document/7036039/
76.	Ayaz Ahmad , Nadir Shah	A joint resource optimization and adaptive modulation framework for uplink single carrier frequency-division multiple access systems	International journal of Communication systems, February 2015	http://onlinelibrary.wiley.com/doi/10.1002/dac.2677/abstract
77.	Ayaz Ahmad , Naveed Ul Hassan, and Nadir Shah	Robust channel quality indicator reporting for multi-carrier and multi-user systems	Computer Networks, December 2014.	http://www.sciencedirect.com/science/article/pii/S1389128614003211
78.	Nadir Shah, Ayaz Ahmad , Waqar Mahmood, and Depei Qian	An efficient and scalable routing for MANETs	Wireless Personal Communications, April 2014	https://link.springer.com/article/10.1007/s11277-013-1403-6
79.	Ayaz Ahmad	Resource allocation and adaptive modulation in uplink SC-FDMA Systems	Wireless Personal Communications, March 2014	https://link.springer.com/article/10.1007/s11277-013-1464-6
80.	Ayaz Ahmad and Mohamad Assaad	Optimal Power and Subcarrier Allocation in Downlink OFDMA System with Imperfect Channel Knowledge	Optimization and Engineering, September 2013.	https://link.springer.com/article/10.1007/s11081-011-9181-z

Language Proficiency:

1. English
2. French
3. Urdu
4. Pashto